IN THE CLAIMS

1. (Currently Amended) A method of determining wear of composite material brake disks (5) of a road vehicle (1); the method comprising which comprises:

calculating, at each deceleration of the vehicle (1), the kinetic energy differential (DEk) of the vehicle (1) induced by the deceleration;,

determining, as a function of the kinetic energy differential (DEk) of the vehicle (1), an instantaneous value (Ed) of the energy dissipated by the brake disks (5) during deceleration;

determining at each deceleration of the vehicle an estimation of the temperature of the brake disks during deceleration,

determining, on the basis of the value (Ed) of the energy dissipated by the brake disks (5) during deceleration and on the basis of the determined estimation temperature of the brake disks during deceleration, an instantaneous wear contribution (u) of the brake disks (5) during deceleration; and

updating a total wear value (U) of the brake disks (5) by adding the instantaneous wear contribution (u) of the brake disks (5) during deceleration to the previous total wear value (U).

2. (Currently Amended) A The method as claimed in of Claim 1, wherein, upon deceleration of the vehicle (1), a corresponding instantaneous value (Ed) of the energy dissipated by the brake disks (5) during deceleration is only determined if the braking action of the brake system (4) of the vehicle (1) is actually used during deceleration.

3. (Currently Amended) A The method as claimed in of Claim 1, wherein, at each deceleration, an the energy contribution caused by the braking action of

friction on the vehicle (1) is determined; the energy contribution caused by the braking action of friction on the vehicle (1) being taken into account to determine the instantaneous value (Ed) of the energy dissipated by the brake disks (5) during deceleration as a function of the kinetic energy differential (DEk) of the vehicle (1).

4. (Currently Amended) ~~A~~ The method as claimed in Claim 1, wherein, at each deceleration, the temperature of the brake disks (5) during deceleration is determined; the instantaneous wear contribution (u) of the brake disks (5) during deceleration being determined on the basis of the value (Ed) of the energy dissipated by the brake disks (5) during deceleration, and on the basis of the determined temperature of the brake disks (5) during deceleration.

5. (Currently Amended) ~~A~~ The method ~~as claimed in~~ of Claim 4<u>1</u>, wherein a mean value of the kinetic energy differential (DEk) of the vehicle (1) within a given time interval is determined; the <u>estimation of the</u> temperature of the brake disks (5) during deceleration being determined as a function of the mean value of the kinetic energy differential (DEk).

6. (Currently Amended) ~~A~~ The method ~~as claimed in~~ of Claim 1, wherein <u>determining the estimation of the temperature of the brake disks during deceleration comprises performing</u> a braking mode assessment ~~is made at each deceleration~~; the instantaneous wear contribution (u) of the brake disks (5) during deceleration being determined on the basis of the value (Ed) of the energy dissipated by the brake disks (5) during deceleration, and on the basis of the braking mode assessment <u>as an indication of the estimation of the temperature of the brake disks during deceleration</u>.

7. (Currently Amended) A ~~The~~ method ~~as claimed in~~ of Claim 6, wherein a mean value of the kinetic energy differential (DEk) of the vehicle ~~(1)~~ within a given time interval is determined; the braking mode assessment being determined as a function of the mean value of the kinetic energy differential (DEk).

8. (Currently Amended) A ~~The~~ method ~~as claimed in~~ of Claim 1, wherein the instantaneous value (Ed) of the energy dissipated by the brake disks ~~(5)~~ during deceleration is assumed to be equal to the kinetic energy differential (DEk) of the vehicle ~~(1)~~; the instantaneous wear contribution (u) of the brake disks ~~(5)~~ during deceleration being determined by multiplying the value (Ed) of the energy dissipated by the brake disks ~~(5)~~ during deceleration by a multiplication constant (K) ranging between ~~(0) and (1)~~0 and 1.

9. (Currently Amended) A ~~The~~ method ~~as claimed in~~ of Claim 8, wherein a mean value of the kinetic energy differential (DEk) of the vehicle ~~(1)~~ within a given time interval is determined; the multiplication constant (K) assuming different values as a function of the mean value of the kinetic energy differential (DEk).

10. (Currently Amended) A ~~The~~ method ~~as claimed in~~ of Claim 8, wherein the multiplication constant (K) may assume ~~two~~ different values corresponding, respectively, to normal use of the vehicle ~~(1)~~ and extreme use of the vehicle ~~(1)~~.

11. (Currently Amended) A ~~The~~ method ~~as claimed in~~ of Claim 9, wherein the time interval in which to determine the mean value of the kinetic energy differential (DEk) of the vehicle ~~(1)~~ ranges between 0, 1 and 5 seconds.

12. (Currently Amended) A ~~The~~ method ~~as claimed in~~ of Claim 1, wherein the total wear value (U) of the brake disks ~~(5)~~ is divided between the front brake disks ~~(5)~~ and the rear brake disks ~~(5)~~ as a function of a constant distribution ratio.

13. (Currently Amended) A ~~The~~ method ~~as claimed in~~ of Claim 1, wherein the total wear value (U) of the brake disks ~~(5)~~ comprises a total wear value (Ua) of the front brake disks ~~(5)~~, and a total wear value (Up) of the rear brake disks ~~(5)~~; the instantaneous wear contribution (u) of the brake disks ~~(5)~~ during deceleration being divided between the two total values (Ua, Up) as a function of a variable distribution ratio.

14. (Currently Amended) A ~~The~~ method ~~as claimed in~~ of Claim 13, wherein the distribution ratio is calculated at each deceleration as a function of the initial and final speed values (V1, V2) of the deceleration.

15. (Currently Amended) A ~~The~~ method ~~as claimed in~~ of Claim 1, wherein a signal is generated when the total wear value (U) of the brake disks ~~(5)~~ exceeds a given threshold.

16. (Currently Amended) A device for determining wear of composite material brake disks ~~(5)~~ of a road ~~vehicle (1), the device implementing the method as claimed in Claim 1.~~ which comprises:

means for calculating, at each deceleration of the vehicle, the kinetic energy differential (DEk) of the vehicle induced by deceleration,

6

means for determining, as a function of the kinetic energy differential (DEk) of the vehicle, an instantaneous value (Ed) of the energy dissipated by the brake disks during deceleration,

means for determining at each deceleration of the vehicle an estimation of the temperature of the brake disks during deceleration,

means for determining, on the basis of the value (Ed) of the energy dissipated by the brake disks during deceleration and on the basis of the determined estimation temperature of the brake disks during deceleration, an instantaneous wear contribution (u) of the brake disks during deceleration; and

means for updating a total wear value (U) of the brake disks by adding the instantaneous wear contribution (u) of the brake disks during deceleration to the previous total wear value (U).